

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-8. (Canceled)

9. (New) An automatic compensating valve comprising:

a body including a bore extending into the body along an axis from an open end to an end wall of the body, and a cold water inlet, a hot water inlet, and a mixed water outlet communicating with the bore through the end wall of the bore;

a base element coaxially received in the bore of the body and including an end wall received over the end wall of the bore and defining orifices disposed in registration with the cold water inlet and the hot water inlet of the valve body, wherein a mixed water chamber connected to the mixed water outlet is partially located between a sidewall of the base element and the body;

an annular seat cage coaxially received in the bore of the body and secured in an open end of the base element, wherein the mixed water chamber extends through an opening of the seat cage;

a plunger coaxially received within the base element and movable along the axis between engagement with the end wall of the base element and the seat cage to control flow between the cold water orifice and the mixed water chamber, and between the hot water orifice and the mixed water chamber, and wherein the plunger and the orifices are arranged so that, when the plunger is axially moved towards the bottom wall of the base element, hot water flow is decreased and cold water flow is increased, and when the plunger is axially moved towards the seat cage, hot water flow is increased and cold water flow is decreased;

a spring biasing the plunger towards engagement with the seat cage;

a stem coaxially extending into the bore of the body and including a valve surface for engagement with the seat cage for controlling mixed water flow to the mixed water outlet of the body;

a wax element axially extending between the stem and the plunger, wherein the wax element is adapted to increase in axial length when heated and decrease in axial length when cooled; and

an annular fixed cartridge nut coaxially fixed in position between the body and the stem, wherein the stem is in threaded engagement with the fixed cartridge nut such that rotation of the stem with respect to the fixed cartridge nut causes the stem to move axially within the body, whereby rotation of the stem controls the mixture of hot and cold water as well as the flow of mixed water.

10. (New) A valve according to claim 9 wherein the orifices of the base element are arranged for flow of water transverse to axial movement of the plunger.

11. (New) A valve according to claim 9 wherein the body further includes a cold water inlet flow passageway connected to the cold water inlet, a hot water inlet flow passageway connected to the hot water inlet, and a mixed water outlet flow passageway connected to the mixed water outlet, wherein each passageway extends generally traverse to the axis of the bore of the body.

12. (New) A valve according to claim 11 further comprising a check valve assembly in each of the cold water inlet flow passageway and the hot water inlet flow passageway.

13. (New) A valve according to claim 11 further comprising a shutoff valve assembly in each of the cold water inlet flow passageway and the hot water inlet flow passageway.

14. (New) A valve according to claim 9 further comprising a bonnet securing the stem, the fixed cartridge nut, the seat cage, and the base element in the body of the valve.

15. (New) A valve according to claim 9 further comprising an adjustable high temperature stop providing a limit upon axial movement of the stem.

16. (New) A valve according to claim 9 further comprising a gasket on the seat cage in alignment with the lower valve surface of the stem.

17. (New) A valve according to claim 9 further comprising an overload spring between the stem and the wax element.

18. (New) A valve according to claim 9 further comprising an annular sleeve coaxially received about the plunger and extending between the bottom wall of the base element and the seat cage, wherein the sleeve include passages for the hot and cold water.

19. (New) A valve according to claim 9 further comprising a bonnet securing the stem, the fixed cartridge nut, the seat cage, and the base element in the body of the valve, and wherein the fixed cartridge nut extends between the bonnet and the seat cage and defines passages for the mixed water.

20. (New) A valve according to claim 9 further comprising a face cover plate secured to the body and an actuator knob secured to the stem.

21. (New) A valve comprising:

a body including a bore extending into the body along an axis from an open end to an end wall of the body, and a cold water inlet, a hot water inlet, and a mixed water outlet communicating with the bore through the end wall of the bore, wherein a mixed water chamber connected to the mixed water outlet is located in the bore of the body;

a plunger received within the bore and movable along the axis to control flow between the cold water orifice and the mixed water chamber, and between the hot water orifice and the mixed water chamber, and wherein the plunger and the orifices are arranged so that, when the plunger is axially moved towards the end wall of the bore, hot water flow is decreased

and cold water flow is increased, and when the plunger is axially moved towards the open end of the bore, hot water flow is increased and cold water flow is decreased;

a spring biasing the plunger towards the open end of the bore;

an annular seat cage coaxially received in the bore of the body between the plunger and the open end of the bore, wherein the mixed water chamber extends through an opening of the seat cage;

a stem coaxially extending into the bore of the body and including a valve surface for engagement with the seat cage to prevent flow from the mixed water chamber to the mixed water outlet of the body, and whereby axial movement of the stem towards the open end of the bore and away from the seat cage allows flow from the mixed water chamber to the mixed water outlet of the body;

a wax element axially extending through the opening of the annular seat cage and between the stem and the plunger, wherein the wax element is adapted to,

increase in axial length and move the plunger towards the end wall of the bore when heated, and

decrease in axial length and move the plunger towards the open end of the bore when cooled;

wherein the stem is in threaded engagement with respect to the body such that,

rotation of the stem in a first direction causes the stem to move axially within the body towards the end wall of the bore to increase flow between the cold water orifice and the mixed water chamber, decrease flow between the hot water orifice and the mixed water chamber, and to ultimately cause the valve surface of the stem to engage the seat cage to prevent flow from the mixed water chamber to the mixed water outlet of the body, and

rotation of the stem in a second direction causes the stem to move axially within the body towards the open end of the bore to cause the valve surface of the stem to disengage the seat cage to allow flow from the mixed water chamber to the mixed water outlet of the body, decrease flow between the cold water orifice and the mixed water chamber, and increase flow between the hot water orifice and the mixed water chamber; and

wherein the body further includes a cold water inlet flow passageway connected to the cold water inlet, a hot water inlet flow passageway connected to the hot water inlet, and two mixed water outlet flow passageways connected to the mixed water outlet, wherein each passageway extends generally traverse to the axis of the bore of the body.

22. (New) A valve according to claim 21 further comprising an overload spring between the stem and the wax element.

23. (New) A valve according to claim 21 further comprising a check valve assembly in each of the cold water inlet flow passageway and the hot water inlet flow passageway.

24. (New) A valve according to claim 21 further comprising a shutoff valve assembly in each of the cold water inlet flow passageway and the hot water inlet flow passageway.

25. (New) A valve according to claim 21 further comprising a high temperature stop providing a limit upon axial movement of the stem.

26. (New) A valve according to claim 21 further comprising a gasket on the seat cage in alignment with the lower valve surface of the stem.

27. (New) A valve according to claim 21 further comprising an overload spring between the stem and the wax element.

28. (New) A valve according to claim 21 further comprising a face cover plate secured to the body and an actuator knob secured to the stem.